

Claims:

- 1 A Universal Mobile Telephone System (UMTS) comprising a
Core Network operating Multi-Protocol Label Switching, the network
including a plurality of Label Switching Routers; at least one Gateway
5 General Packet Support Node (SGSN); at least one Serving General Packet
Radio Support Node; a plurality of Radio Network Controllers associated with
said SGSN; and a plurality of Node Bs associated with each said controller;
all Nodes and Controllers operating User Data Protocol/Internet Protocol,
wherein a first Multi-Protocol Label Switching Edge Node is located in the
10 GGSN.
- 2 A UMTS according to Claim 1 in which a second MPLS Edge
Node is located in at least one SGSN.
- 3 A UMTS according to Claim 1 in which a second MPLS Edge
Node is located in each Radio Network Controller.
- 15 4 A UMTS according to Claim 3 in which the at least one SGSN
is arranged as a MPLS Label Switching Router.
- 5 A UMTS according to Claim 1 in which a second MPLS Edge
Node is located in each Node B.
- 6 A UMTS according to Claim 5 in which the at least one SGSN
20 and each Radio Network Controller is arranged as a MPLS Label Switching
Router.
- 7 A UMTS according Claim 1 in which in the protocol stacks of
the GGSN, and in the protocol stacks of the SGSN or the RNCs or the Node
Bs when acting as a MPLS Edge Node, the MPLS protocol is located in a
25 protocol layer immediately below the User Data Protocol/Internet Protocol
layer.
- 8 A UMTS according to Claim 1 in which each MPLS Edge Node
is arranged either to encapsulate IP packets into MPLS frames or to strip
MPLS frames from IP packets.
- 30 9 A UMTS according to Claim 1 arranged so that routes between
any two network entities are associated with labels distributed throughout the

network in Label Information Base stores.

10 A UMTS according to Claim 9 in which each Label Switching Router is arranged to look up a Label Information Base store to determine the appropriate route to a next network entity.